

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Complete Listing of Claims:

1. (Canceled).
2. (Currently Amended) A process for cleaning a substrate selected from the group consisting of a textile, a flexible structure, a precision structure, a delicate structure, and a porous structure, comprising:

placing the substrates in a perforated cleaning drum within a pressurizable cleaning vessel;

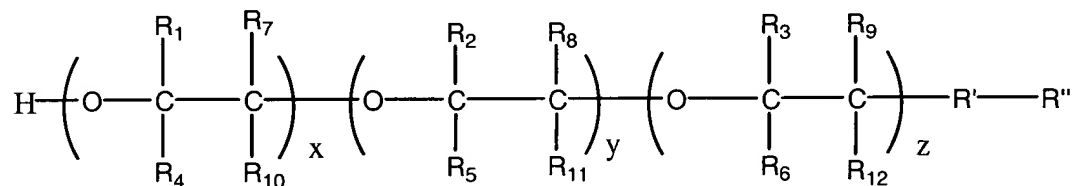
adding organic solvent to the cleaning vessel, the organic solvent comprising less than 50% by weight water;

cleaning the substrates in the perforated cleaning drum ~~removing contaminant from the substrate in presence of at least one organic solvent and in absence of pressurized fluid solvent the organic solvent comprising less than 50% by weight water;~~

removing at least a portion of the organic solvent from the cleaning vessel ~~presence of the substrate;~~ and

thereafter removing a remaining portion of the organic solvent from the substrate using at least one pressurized fluid solvent, wherein:

(a) the organic solvent is of the structural formula:



wherein x, y, and z each is zero or one;

at least one of x, y, and z is one;

R'' is benzyl, phenyl, partially or fully fluorinated benzyl or phenyl, C_jH_{2j+1} , or $C_jH_aF_b$ wherein j is an integer between one and $(13-3(x+y+z))$, inclusive, a and b each is independently an integer between zero and $2j+1$, inclusive, and $a+b=2j+1$;

R_{1-12} are independently $C_mH_nF_p$ or $C_dH_eF_g$ where m is an integer between zero and two, inclusive, n and p are integers between zero and five, inclusive and $n+p=2m+1$, d is an integer between zero and two, inclusive, e and g are integers between zero and five, inclusive, and $e+g=2d+1$; and

R' is O, S, carbonyl or ester; and

(b) when the pressurized fluid solvent is liquid carbon dioxide, the liquid carbon dioxide is at a subcritical condition.

3. (Previously Presented) The process of claim 2 wherein:

R' is O;

R'' is C_jH_{2j+1} ;

R_{1-3} are independently H or CH_3 ; and

R_{4-12} each is H.

4. (Previously Presented) The process of claim 2 wherein:

R' is S, carbonyl or ester;

R'' is C_jH_{2j+1} ;

R_{1-3} are independently H or CH_3 ; and

R_{4-12} each is H.

5. (Previously Presented) The process of claim 2 wherein:

R' is O;

R'' is C_jH_{2j+1} ;

R_{1-3} are independently H, CH_3 , or C_2H_5 ; and

at least one of R_{1-3} is CH_2CH_3 ; and

R_{4-12} are each H.

6. (Previously Presented) The process of claim 2 wherein:

R' is S, carbonyl or ester;

R'' is C_jH_{2j+1};

R₁₋₃ are independently H, CH₃, or C₂H₅; and

at least one of R₁₋₃ is CH₂CH₃; and

R₄₋₁₂ are each H.

7. (Previously Presented) The process of claim 2 wherein:

R' is O;

R'' is C_jH_{2j+1};

R₁₋₉ are each H;

R₁₀₋₁₂ are independently H or CH₃; and

at least one of R₁₀₋₁₂ is CH₃.

8. (Previously Presented) The process of claim 2 wherein:

R' is S, carbonyl or ester;

R'' is C_jH_{2j+1};

R₁₋₉ are each H;

R₁₀₋₁₂ are independently H or CH₃; and

at least one of R₁₀₋₁₂ is CH₃.

9. (Previously Presented) The process of claim 2 wherein:

R' is O;

R'' is C_jH_{2j+1};

R₁₋₉ are each H;

R₁₀₋₁₂ are independently H, CH₃, or C₂H₅; and

at least one of R₁₀₋₁₂ is CH₂CH₃.

10. (Previously Presented) The process of claim 2 wherein:

R' is S, carbonyl or ester;

R'' is C_jH_{2j+1};

R₁₋₉ are each H;

R₁₀₋₁₂ are independently H, CH₃, or C₂H₅; and

at least one of R₁₀₋₁₂ is CH₂CH₃.

11. (Previously Presented) The process of claim 2 wherein:
- R' is O;
 - R'' is $C_jH_aF_b$;
 - R_{1-3} are independently H, F, CH_3 , CH_2F , CHF_2 , or CF_3 and at least one is CH_3 , CH_2F , CHF_2 , or CF_3 ; and
 - R_{4-12} are independently H or F.
12. (Previously Presented) The process of claim 2 wherein:
- R' is S, carbonyl, or ester;
 - R'' is $C_jH_aF_b$;
 - R_{1-3} are independently H, F, CH_3 , CH_2F , CHF_2 , or CF_3 and at least one is CH_3 , CH_2F , CHF_2 , or CF_3 ; and
 - R_{4-12} are independently H or F.
13. (Previously Presented) The process of claim 2 wherein:
- R_{1-3} are independently $C_mH_nF_p$;
 - at least one of R_{1-3} is $C_2H_nF_p$;
 - R_{4-12} are independently H or F;
 - R' is O; and
 - R'' is $C_jH_aF_b$.
14. (Previously Presented) The process of claim 2 wherein:
- R_{1-3} are independently $C_mH_nF_p$;
 - at least one of R_{1-3} is $C_2H_nF_p$;
 - R_{4-12} are independently H or F;
 - R' is S, carbonyl or ester; and
 - R'' is $C_jH_aF_b$.
15. (Previously Presented) The process of claim 2 wherein:
- R_{1-9} are independently H or F;
 - R_{10-12} are independently H, F, CH_3 , CH_2F , CHF_2 or CF_3 ;
 - at least one of R_{10-12} is CH_3 , CH_2F , CHF_2 or CF_3 ;
 - R' is O; and

R'' is C_jH_aF_b.

16. (Previously Presented) The process of claim 2 wherein:

R₁₋₉ are independently H or F;

R₁₀₋₁₂ are independently H, F, CH₃, CH₂F, CHF₂ or CF₃;

at least one of R₁₀₋₁₂ is CH₃, CH₂F, CHF₂ or CF₃;

R' is S, carbonyl or ester; and

R'' is C_jH_aF_b.

17. (Previously Presented) The process of claim 2 wherein:

R' is O;

R'' is C_jH_aF_b;

R₁₋₃ are independently C_mH_nF_p;

R₄₋₉ are independently H or F; and

R₁₀₋₁₂ are independently C_dH_eF_g.

18. (Previously Presented) The process of claim 2 wherein:

R' is S, carbonyl or ester;

R'' is C_jH_aF_b;

R₁₋₃ are independently C_mH_nF_p;

R₄₋₉ are independently H or F; and

R₁₀₋₁₂ are independently C_dH_eF_g.

19. (Previously Presented) The process of claim 2 wherein:

R' is O;

R'' is benzyl or phenyl;

R₁₋₃ are independently H, CH₃, or C₂H₅;

at least one of R₁₋₃ is CH₂CH₃; and

R₄₋₁₂ are each H.

20. (Previously Presented) The process of claim 2 wherein:

R' is S, carbonyl or ester;

R'' is benzyl or phenyl;

R_{1-3} are independently H, CH_3 , or C_2H_5 ;
at least one of R_{1-3} is CH_2CH_3 ; and
 R_{4-12} are each H.

21. (Previously Presented) The process of claim 2 wherein:

R' is O;
 R'' is benzyl or phenyl;
 R_{1-9} are each H;
 R_{10-12} are independently H or CH_3 ; and
at least one of R_{10-12} is CH_3 .

22. (Previously Presented) The process of claim 2 wherein:

R' is S, carbonyl or ester;
 R'' is benzyl or phenyl;
 R_{1-9} are each H;
 R_{10-12} are independently H or CH_3 ; and
at least one of R_{10-12} is CH_3 .

23. (Previously Presented) The process of claim 2 wherein:

R' is O;
 R'' is benzyl or phenyl;
 R_{1-9} are each H;
 R_{10-12} are independently H, CH_3 , or C_2H_5 ; and
at least one of R_{10-12} is CH_2CH_3 .

24. (Previously Presented) The process of claim 2 wherein:

R' is S, carbonyl or ester;
 R'' is benzyl or phenyl;
 R_{1-9} are each H;
 R_{10-12} are independently H, CH_3 , or C_2H_5 ; and
at least one of R_{10-12} is CH_2CH_3 .

25. (Previously Presented) The process of claim 2 wherein:

R'' is benzyl, phenyl, or partially or fully fluorinated benzyl or phenyl;
R₁₋₃ are independently C_mH_nF_p;
at least one of R₁₋₃ is C₂H_nF_p;
R₄₋₁₂ are independently H or F; and
R' is O.

26. (Previously Presented) The process of claim 2 wherein:

R'' is benzyl, phenyl, or partially or fully fluorinated benzyl or phenyl;
R₁₋₃ are independently C_mH_nF_p;
at least one of R₁₋₃ is C₂H_nF_p;
R₄₋₁₂ are independently H or F; and
R' is S, carbonyl or ester.

27. (Previously Presented) The process of claim 2 wherein:

R'' is benzyl, phenyl, or partially or fully fluorinated benzyl or phenyl;
R₁₋₉ are independently H or F;
R₁₀₋₁₂ are independently H, F, CH₃, CH₂F, CHF₂ or CF₃;
at least one of R₁₀₋₁₂ is CH₃, CH₂F, CHF₂ or CF₃; and
R' is O.

28. (Previously Presented) The process of claim 2 wherein:

R'' is benzyl, phenyl, or partially or fully fluorinated benzyl or phenyl;
R₁₋₉ are independently H or F;
R₁₀₋₁₂ are independently H, F, CH₃, CH₂F, CHF₂ or CF₃;
at least one of R₁₀₋₁₂ is CH₃, CH₂F, CHF₂ or CF₃; and
R' is S, carbonyl or ester.

29. (Previously Presented) The process of claim 2 wherein:

R'' is benzyl, phenyl, or partially or fully fluorinated benzyl or phenyl;
R₁₋₉ are independently H or F;
R₁₀₋₁₂ are independently C_mH_nF_p;
at least one of R₁₀₋₁₂ is C₂H_nF_p; and
R' is O.

30. (Previously Presented) The process of claim 2 wherein:

R'' is benzyl, phenyl, or partially or fully fluorinated benzyl or phenyl;

R₁₋₉ are independently H or F;

R₁₀₋₁₂ are independently C_mH_nF_p;

at least one of R₁₀₋₁₂ is C₂H_nF_p; and

R' is S, carbonyl or ester.

31. (Previously Presented) The process of claim 2 wherein:

R' is O;

R'' is benzyl, phenyl, or partially or fully fluorinated benzyl or phenyl;

R₁₋₃ are independently C_mH_nF_p;

R₄₋₉ are independently H or F; and

R₁₀₋₁₂ are independently C_dH_eF_g.

32. (Previously Presented) The process of claim 2 wherein:

R' is S, carbonyl or ester;

R'' is benzyl, phenyl, or partially or fully fluorinated benzyl or phenyl;

R₁₋₃ are independently C_mH_nF_p;

R₄₋₉ are independently H or F; and

R₁₀₋₁₂ are independently C_dH_eF_g.

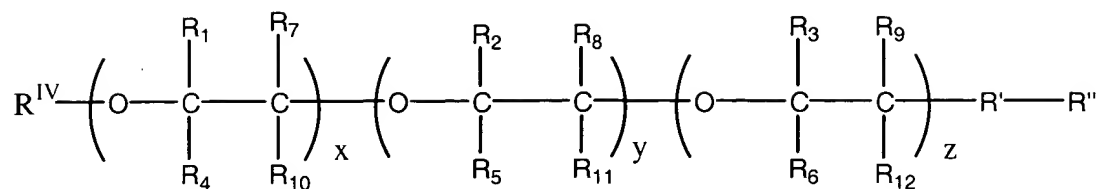
33. (Withdrawn) A process for cleaning a substrate selected from the group consisting of a textile, a flexible structure, a precision structure, a delicate structure, and a porous structure, comprising:

removing contaminant from the substrate in presence of at least one organic solvent and in absence of pressurized fluid solvent, the organic solvent comprising less than 50% by weight water;

removing at least a portion of the organic solvent from the presence of the substrate; and

thereafter removing a remaining portion of the organic solvent from the substrate using at least one pressurized fluid solvent, wherein:

the organic solvent is of the structural formula:



wherein x, y, and z each is zero or one;

at least one of x, y, and z is one;

R'' is C_jH_{2j+1} or $C_jH_uF_v$ and R^{IV} is C_kH_{2k+1} or $C_kH_rF_s$ wherein j and k are each an integer between one and $(13-3(x+y+z))$, inclusive, and $j+k$ is an integer between two and $(13-3(x+y+z))$, inclusive, u and v are each an integer between zero and $2j+1$, inclusive, and $u+v=2j+1$, and r and s are each an integer between zero and $2k+1$, inclusive, and $r+s=2k+1$, and if k equals zero, then s equals zero;

R_{1-3} and R_{10-12} are independently $C_mH_nF_p$, where m is an integer between zero and two, inclusive, n and p are integers between zero and five, inclusive and $n+p=2m+1$;

R_{4-9} are independently H, F, CH_3 , CH_2F , CHF_2 , or CF_3 ; and

R' is O, S, carbonyl or ester, and if R' is O or S and j equals zero then v equals zero; and

wherein when the pressurized fluid solvent is liquid carbon dioxide, the liquid carbon dioxide is at a subcritical condition.

34. (Withdrawn) The process of claim 33 wherein:

R' is O;

R'' is C_jH_{2j+1} ;

R^{IV} is C_kH_{2k+1} ;

R_{1-3} are independently H or CH_3 ; and

R_{4-12} are each H.

35. (Withdrawn) The process of claim 33 wherein:

R' is S, carbonyl or ester;

R'' is C_jH_{2j+1} ;

R^{IV} is C_kH_{2k+1} ;

R_{1-3} are independently H or CH_3 ; and

R_{4-12} are each H.

36. (Withdrawn) The process of claim 33 wherein:

R' is O;
R'' is C_jH_{2j+1} ;
 R^{IV} is C_kH_{2k+1} ;
 R_{1-3} are independently H, CH_3 , or C_2H_5 ;
at least one of R_{1-3} is CH_2CH_3 ; and
 R_{4-12} are each H.

37. (Withdrawn) The process of claim 33 wherein:

R' is S, carbonyl or ester;
R'' is C_jH_{2j+1} ;
 R^{IV} is C_kH_{2k+1} ;
 R_{1-3} are independently H, CH_3 , or C_2H_5 ;
at least one of R_{1-3} is CH_2CH_3 ; and
 R_{4-12} are each H.

38. (Withdrawn) The process of claim 33 wherein:

R' is O;
R'' is C_jH_{2j+1} ;
 R^{IV} is C_kH_{2k+1} ;
 R_{1-9} are each H;
 R_{10-12} are independently H or CH_3 ; and
at least one of R_{10-12} is CH_3 .

39. (Withdrawn) The process of claim 33 wherein:

R' is S, carbonyl or ester;
R'' is C_jH_{2j+1} ;
 R^{IV} is C_kH_{2k+1} ;
 R_{1-9} are each H;
 R_{10-12} are independently H or CH_3 ; and
at least one of R_{10-12} is CH_3 .

40. (Withdrawn) The process of claim 33 wherein:

R' is O;
 R'' is C_jH_{2j+1} ;
 R^{IV} is C_kH_{2k+1} ;
 R_{1-9} are each H;
 R_{10-12} are independently H, CH_3 , or C_2H_5 ; and
 at least one of R_{10-12} is CH_2CH_3 .

41. (Withdrawn) The process of claim 33 wherein:

R' is S, carbonyl or ester;
 R'' is C_jH_{2j+1} ;
 R^{IV} is C_kH_{2k+1} ;
 R_{1-9} are each H;
 R_{10-12} are independently H, CH_3 , or C_2H_5 ; and
 at least one of R_{10-12} is CH_2CH_3 .

42. (Withdrawn) The process of claim 33 wherein:

R_{1-3} are independently H, F, CH_3 , CH_2F , CHF_2 , or CF_3 ;
 R_{4-12} are independently H or F; and
 R' is O.

43. (Withdrawn) The process of claim 33 wherein:

R_{1-3} are independently H, F, CH_3 , CH_2F , CHF_2 , or CF_3 ;
 R_{4-12} are independently H or F; and
 R' is S, carbonyl or ester.

44. (Withdrawn) The process of claim 33 wherein:

at least one of R_{1-3} is $C_2H_nF_p$;
 R_{4-12} are each independently H or F; and
 R' is O.

45. (Withdrawn) The process of claim 33 wherein:

at least one of R_{1-3} is $C_2H_nF_p$;
 R_{4-12} are each independently H or F; and

R' is S, carbonyl or ester.

46. (Withdrawn) The process of claim 33 wherein:

R₁₋₉ are independently H or F;

R₁₀₋₁₂ are independently H, F, CH₃, CH₂F, CHF₂ or CF₃;

at least one of R₁₀₋₁₂ is CH₃, CH₂F, CHF₂ or CF₃; and

R' is O.

47. (Withdrawn) The process of claim 33 wherein:

R₁₋₉ are independently H or F;

R₁₀₋₁₂ are independently H, F, CH₃, CH₂F, CHF₂ or CF₃;

at least one of R₁₀₋₁₂ is CH₃, CH₂F, CHF₂ or CF₃; and

R' is S, carbonyl or ester.

48. (Withdrawn) The process of claim 33 wherein:

R₁₋₉ are independently H, F, CH₃, CH₂F, CHF₂ or CF₃;

at least one of R₁₀₋₁₂ is C₂H_nF_p; and

R' is O.

49. (Withdrawn) The process of claim 33 wherein:

R₁₋₉ are independently H, F, CH₃, CH₂F, CHF₂ or CF₃;

at least one of R₁₀₋₁₂ is C₂H_nF_p; and

R' is S, carbonyl or ester.

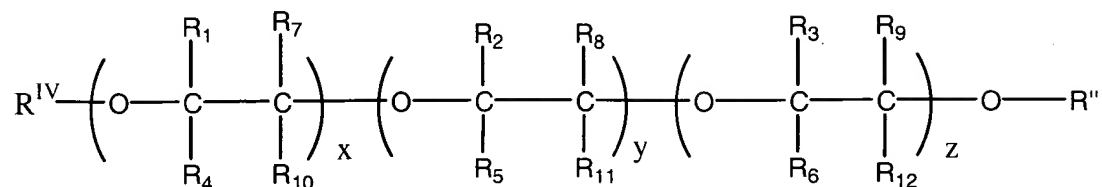
50. (Withdrawn) A process for cleaning a substrate selected from the group consisting of a textile, a flexible structure, a precision structure, a delicate structure, and a porous structure, comprising:

cleaning the substrate for a period of time sufficient to remove a desired level of a contaminant from the substrate in presence of at least one organic solvent and in absence of pressurized fluid solvent, the organic solvent comprising less than 50% by weight water;

removing at least a portion of the organic solvent from the presence of the substrate; and

thereafter removing a remaining portion of the organic solvent from the substrate using at least one pressurized fluid solvent, wherein:

the organic solvent is of the structural formula:

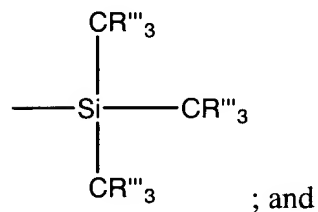
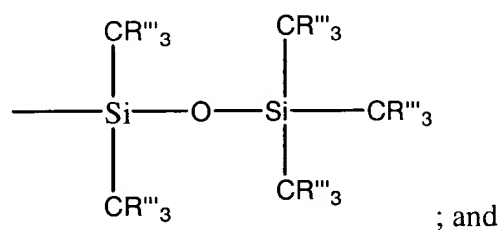


wherein x, y, and z are each zero or one;

at least one of x, y, and z is one;

R'' is selected from the group consisting of:

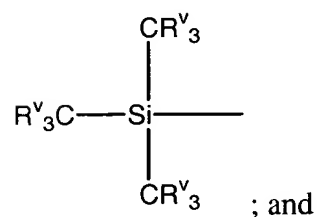
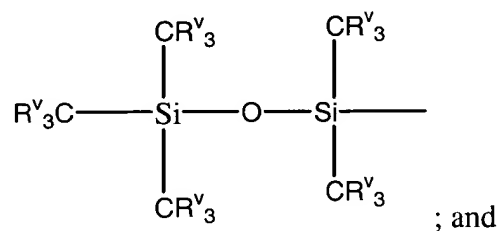
H;



wherein R''' is H, F or combinations of H and F;

R^{IV} is selected from the group consisting of:

H;



wherein R^V is H, F or combinations of H and F; and

when R'' is H or F, R^{IV} is not H or F;

R₁₋₃ are independently H, F, CH₃, CH₂F, CHF₂ or CF₃; and

R₄₋₁₂ are independently H or F;

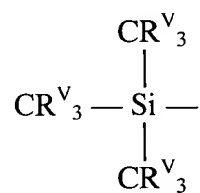
wherein when the pressurized fluid solvent is liquid carbon dioxide, the liquid carbon dioxide is at a subcritical condition.

51. (Withdrawn) The process of claim 50 wherein:

R^{IV} is:

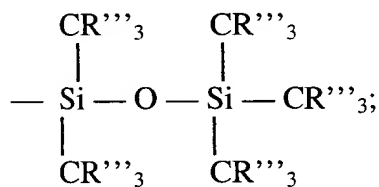
H

or



wherein R^V is H, F or combinations of H and F; and

R'' is:



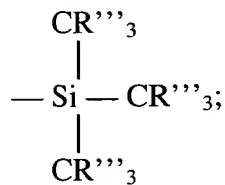
wherein R''' is H, F or combinations of H and F.

52. (Withdrawn) The process of claim 50 wherein:

R'' is:

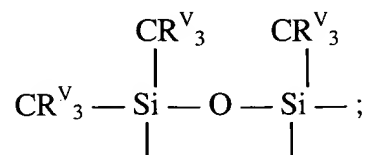
H

or



wherein R''' is H, F or combinations of H and F; and

R^{IV} is:

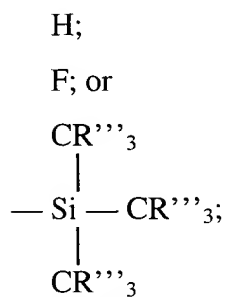


$$\text{CR}^{\text{V}}_3 \quad \text{CR}^{\text{V}}_3$$

wherein R^{V} is H, F or combinations of H and F.

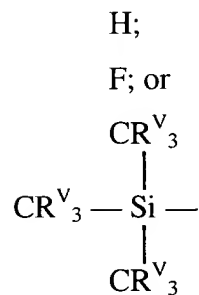
53. (Withdrawn) The process of claim 50 wherein:

R'' is:



wherein R^{V} is H, F or combinations of H and F; and

R^{IV} is:



wherein R^{V} is H, F or combinations of H and F; and

when R'' is H or F, R^{IV} is not H or F.

54. (Withdrawn) The process of claim 50 wherein:

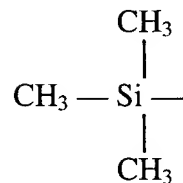
R_{1-3} are independently H or CH_3 ;

R_{4-12} are each H;

R^{IV} is:

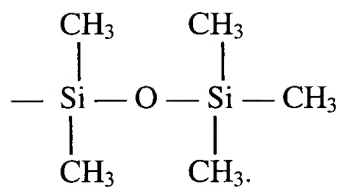
H

or



and

R'' is:



55. (Withdrawn) The process of claim 50 wherein:

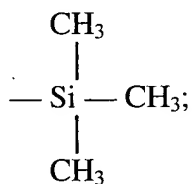
R_{1-3} are independently H or CH_3 ;

R_{4-12} are each H;

R'' is:

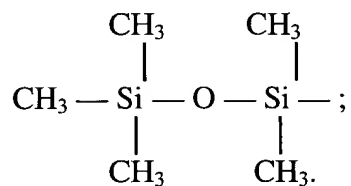
H

or



and

R^{IV} is:



56. (Withdrawn) The process of claim 50 wherein:

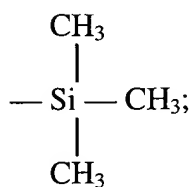
R_{1-3} are independently H or CH_3 ;

R_{4-12} are each H;

R'' is:

H;

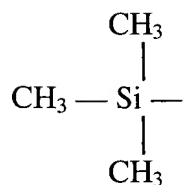
or



R^{IV} is:

H;

or



and when R^{'''} is H, R^{IV} is not H.

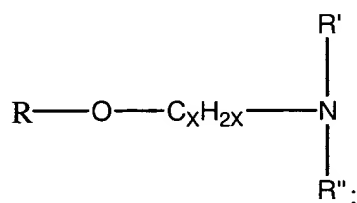
57. (Withdrawn) A process for cleaning a substrate selected from the group consisting of a textile, a flexible structure, a precision structure, a delicate structure, and a porous structure, comprising:

cleaning the substrate for a period of time sufficient to remove a desired level of a contaminant from the substrate in presence of at least one organic solvent and in absence of pressurized fluid solvent, the organic solvent comprising less than 50% by weight water;

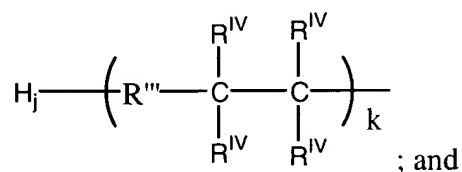
removing at least a portion of the organic solvent from the presence of the substrate; and

thereafter removing a remaining portion of the organic solvent from the substrate using at least one pressurized fluid solvent, wherein:

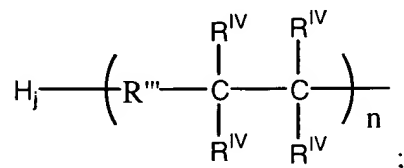
the organic solvent is of the structural formula:



wherein R' is



R'' is independently



wherein R''' is O and j is 1 or R''' is N and j is 2;

n is an integer between zero and two;

R^{IV} are each independently H, CH_3 or CH_2CH_3 and k is an integer between zero and two inclusive; and

wherein R is C_yH_{2y+1} and y is an integer between one and $(12 - (3k + 3n + x))$ inclusive, and x is an integer between one and $(12 - (3k + y))$, inclusive; and

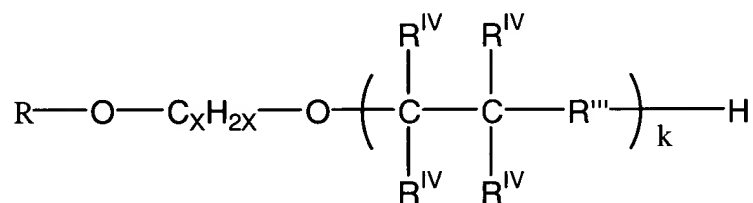
wherein when the pressurized fluid solvent is liquid carbon dioxide, the liquid carbon dioxide is at a subcritical condition.

58. (Withdrawn) A process for cleaning a substrate selected from the group consisting of a textile, a flexible structure, a precision structure, a delicate structure, and a porous structure, comprising:

cleaning the substrate for a period of time sufficient to remove a desired level of a contaminant from the substrate in presence of at least one organic solvent and in absence of pressurized fluid solvent, the organic solvent comprising less than 50% by weight water;

removing at least a portion of the organic solvent from the presence of the substrate; and thereafter removing a remaining portion of the organic solvent from the substrate using at least one pressurized fluid solvent, wherein:

the organic solvent is of the structural formula:



wherein R''' is O or NH;

R^{IV} are each independently H, CH_3 or CH_2CH_3 and k is an integer between zero and two inclusive; and

wherein R is C_yH_{2y+1} and y is an integer between one and $(12 - (3k + x))$ inclusive, and x is an integer between one and $(12 - (3k + y))$, inclusive; and

wherein when the pressurized fluid solvent is liquid carbon dioxide, the liquid carbon dioxide is at a subcritical condition.

59. (Previously presented) The process of claim 2 wherein the organic solvent contains 5 or more carbon atoms.
60. (Previously presented) The process of claim 2 wherein the organic solvent has a flash point of greater than 200° F.
61. (Previously Presented) The process of claim 2, wherein the organic solvent is selected from the group consisting of propylene glycol t-butyl ether, dipropylene glycol methyl ether, tripropylene glycol methyl ether, dipropylene glycol n-butyl ether, dipropylene glycol n-propyl ether, and tripropylene glycol n-butyl ether.
62. (Previously presented) The process of claim 2 wherein the organic solvent further comprises one or more co-solvents, detergents, or additives to enhance cleaning capability.
63. (Previously presented) The process of claim 2 wherein the pressurized fluid solvent is between approximately 5° C to approximately 30° C.
64. (Previously presented) The process of claim 2 wherein the pressurized fluid solvent comprises liquid carbon dioxide.
65. (Previously presented) The process of claim 2 wherein, during the step of removing a remaining portion of the organic solvent from the substrate using at least one pressurized fluid solvent, the pressurized fluid solvent is at a pressure of between approximately 600 pounds per square inch to approximately 1050 pounds per square inch.
66. (Previously presented) The process of claim 2 wherein, during the step of removing a remaining portion of the organic solvent from the substrate using at least one pressurized fluid solvent, the pressurized fluid solvent is at a pressure of between approximately 570 pounds per square inch to approximately 830 pounds per square inch.
67. (Previously presented) The process of claim 2 wherein the pressurized fluid solvent comprises xenon, nitrous oxide, or sulfur hexafluoride.

68. (Previously Presented) The process of claim 67, wherein the pressurized fluid solvent is compressed to a subcritical condition.
69. (Previously Presented) The process of claim 68, wherein the pressurized fluid solvent is a liquid.
70. (Previously Presented) The process of claim 67, wherein the pressurized fluid solvent is compressed to a supercritical condition.
71. (Previously presented) The process of claim 2 wherein the textile comprises a fabric, an article of clothing, a protective cover, a carpet, upholstery, or a window treatment.
72. (Previously presented) The process of claim 2 wherein the contaminant comprises an insoluble particulate.
73. (Previously presented) The process of claim 2 wherein the contaminant comprises an organic solvent soluble oil, or an organic solvent soluble grease.
74. (Previously Presented) The process of claim 2, wherein:
R₁₋₃ are independently selected from the group consisting of H, F, CH₃, CH₂CH₃, CH₂F, CHF₂, CF₃, and C_mH_nF_p;
R₄₋₉ are independently selected from the group consisting of H and F; and
R₁₀₋₁₂ are independently selected from the group consisting of H, F, CH₃, CH₂CH₃, CH₂F, CHF₂, CF₃, C_dH_eF_g, and C_mH_nF_p.
75. (Previously Presented) The process of claim 74, wherein R₁₋₃ are independently selected from the group consisting of H and CH₃.
76. (Previously Presented) The process of claim 74, wherein R₁₋₃ are independently selected from the group consisting of H, CH₃, and CH₂CH₃.
77. (Previously Presented) The process of claim 74, wherein R₁₋₃ are independently selected from the group consisting of H, F, CH₃, CH₂F, CHF₂, and CF₃.
78. (Previously Presented) The process of claim 74, wherein R₁₋₃ are C_mH_nF_p.

79. (Previously Presented) The process of claim 74, wherein R_{4-9} are H.
80. (Previously Presented) The process of claim 74, wherein R_{4-9} are F.
81. (Previously Presented) The process of claim 74, wherein R_{10-12} are H.
82. (Previously Presented) The process of claim 74, wherein R_{10-12} are independently selected from the group consisting of H or F.
83. (Previously Presented) The process of claim 74, wherein R_{10-12} are independently selected from the group consisting of H and CH_3 .
84. (Previously Presented) The process of claim 74, wherein R_{10-12} are independently selected from the group consisting of H, CH_3 , and CH_2CH_3 .
85. (Previously Presented) The process of claim 74, wherein R_{10-12} are independently selected from the group consisting of H, F, CH_3 , CH_2F , CHF_2 , and CF_3 .
86. (Previously Presented) The process of claim 74, wherein R_{10-12} are $C_dH_eF_g$.
87. (Previously Presented) The process of claim 74, wherein R_{10-12} are $C_mH_nF_p$.
88. (Previously Presented) The process of claim 2, wherein R' is O.
89. (Previously Presented) The process of claim 2, wherein R' is selected from the group consisting of S, carbonyl, and ester.
90. (Withdrawn) The process of claim 33, wherein:
 R_{1-3} and R_{10-12} are independently selected from the group consisting of H, F, CH_3 , CH_2CH_3 , CH_2F , CHF_2 , CF_3 , and $C_mH_nF_p$; and
 R_{4-9} are independently selected from the group consisting of H, F, and CH_3 .
91. (Withdrawn) The process of claim 90, wherein R_{1-3} and R_{10-12} are H.
92. (Withdrawn) The process of claim 90, wherein R_{1-3} and R_{10-12} are independently selected from the group consisting of H and CH_3 .

93. (Withdrawn) The process of claim 90, wherein R_{1-3} and R_{10-12} are independently selected from the group consisting of H, CH_3 , and CH_2CH_3 .
94. (Withdrawn) The process of claim 90, wherein R_{1-3} and R_{10-12} are independently selected from the group consisting of H, F, CH_3 , CH_2F , CHF_2 , and CF_3 .
95. (Withdrawn) The process of claim 90, wherein R_{1-3} and R_{10-12} are $C_mH_nF_p$.
96. (Withdrawn) The process of claim 90, wherein R_{4-9} are H.
97. (Withdrawn) The process of claim 90, wherein R_{4-9} are independently selected from the group consisting of H and F.
98. (Withdrawn) The process of claim 33, wherein R' is O.
99. (Withdrawn) The process of claim 33, wherein R'' is C_jH_{2j+1} .
100. (Withdrawn) The process of claim 33, wherein R'' is $C_jH_uF_v$.
101. (Withdrawn) The process of claim 33, wherein R^{IV} is C_kH_{2k+1} .
102. (Withdrawn) The process of claim 33, wherein R^{IV} is $C_kH_rF_s$.
103. (Canceled).
104. (Cancelled).
105. (Cancelled).
106. (Withdrawn) The process of Claim 50 wherein said desired level of a contaminant comprises at least a significant portion of said contaminant.
107. (Withdrawn) The process of Claim 57 wherein said desired level of a contaminant comprises at least a significant portion of said contaminant.
108. (Withdrawn) The process of Claim 58 wherein said desired level of a contaminant comprises at least a significant portion of said contaminant.

109. (Previously presented) The process of Claim 2 wherein:
- $z = \text{zero}$;
- $R' = O$;
- $R'' = C_jH_{2j+1}$; and
- $R_1, R_2, R_4, R_5, R_7, R_8, R_{10}$ and R_{11} are independently H or CH_3 .
110. (New) The process of Claim 2 where the substrate is spot treated prior to the step of placing the substrate in the perforated cleaning drum.